

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An immunochemical assay for anti-HM1.24 antibody in fluids, said assay comprising the steps of reacting soluble HM1.24 antigen protein with anti-HM1.24 antibody contained in a test sample, wherein the test sample includes **human body** fluids, **culture supernatants of cells or animal secretion**, and then detecting or determining the anti-HM1.24 antibody bound to the soluble HM1.24 antigen protein, wherein the soluble HM1.24 antigen protein is a protein consisting of the amino acid sequence modified by lacking the last 17 or 14 amino acid residues from a C-terminus of the amino acid sequence of SEQ ID NO:20.

2. (Original) The immunochemical assay according to claim 1 wherein said soluble HM1.24 antigen protein is bound to a support.

3. (Withdrawn) An immunochemical assay for soluble HM1.24 antigen protein, said method comprising the steps of reacting anti-HM1.24 antibody and soluble HM1.24 antigen protein contained in a test sample, and then detecting or determining the soluble HM1.24 antigen protein bound to the anti-HM1.24 antibody, wherein the soluble HM1.24 antigenic protein is:

(a) a protein having the amino acid sequence modified by lacking 17 or 14 amino acid residues from C-terminal in the amino acid sequence shown in SEQ ID NO:20;

(b) a protein having the amino acid sequence modified by lacking 17 or 14 amino acid residues from C-terminal, and lacking 27 amino acid residues from N-terminal in the amino acid sequence shown in SEQ ID NO:20;

or

(c) a fusion protein comprising the protein described in the above (a) or (b), and a peptide selected from a group consisting of FLAG, 6 x His comprising 6 histidine residues (SEQ ID NO: 30), 10 x His (SEQ ID NO: 31), influenza hemagglutinin, fragments of

human c-myc, fragments of VSV-GP, fragments of p18HIV, T7-tag, HSV-tag, E-tag, fragments of SV40T antigen, lcktag, fragments of α -tubulin, B-tag, and fragments of Protein C, or a polypeptide selected from a group consisting of glutathione S-transferase, HA, the constant regions of immunoglobulin, β -galactosidase, and maltose-binding protein.

4. (Withdrawn) The immunochemical assay according to claim 3 wherein said anti-HM1.24 antibody is bound to a support.

5. (Canceled)

6. (Previously Presented) The immunochemical assay according to claim 2, wherein said support is a bead or a plate.

7. (Previously Presented) The immunochemical assay according to claim 1 wherein the bound anti-HM1.24 antibody or the bound soluble HM1.24 antigen protein is detected or determined using a primary antibody against the anti-HM1.24 antibody or a primary antibody against the soluble HM1.24 antigen protein, respectively.

8. (Previously Presented) The immunochemical assay according to claim 1 wherein the bound anti-HM1.24 antibody or the bound soluble HM1.24 antigen protein is detected or determined using a primary antibody against the anti-HM1.24 antibody or a primary antibody against the soluble HM1.24 antigen protein, respectively, and a second antibody against said primary antibody.

9. (Previously Presented) The immunochemical assay according to claim 8, wherein the primary antibody or the second antibody is labeled with a radioisotope, an enzyme, biotin, avidin, or a fluorogenic substance.

10. (Withdrawn) The soluble HM1.24 antigen protein having the amino acid sequence modified by lacking 17 or less amino acid residues from the C-terminal in the amino acid sequence as set forth in SEQ ID NO: 1, or a protein having an amino acid sequence modified by lacking 17 or less amino acid residues from the C-terminal, and lacking 27 or less amino acid residues from the N-terminal in the amino acid sequence shown in SEQ ID NO: 1.

11. (Withdrawn) A fusion protein of the soluble HM1.24 antigen protein according to claim 10 and another peptide or polypeptide.

12. (Withdrawn) DNA encoding the soluble HM1.24 antigen protein or the fusion protein of the soluble HM1.24 antigen protein and another peptide or polypeptide according to claim 10.

13. (Previously Presented) The immunochemical assay according to claim 7, wherein the primary antibody is labeled with a radioisotope, an enzyme, biotin, avidin, or a fluorogenic substance.

14. (Withdrawn) DNA encoding the soluble HM1.24 antigen protein or the fusion protein of the soluble HM1.24 antigen protein and another peptide or polypeptide according to claim 11.

15. (Withdrawn) The immunochemical assay according to claim 4, wherein said support is a bead or a plate.

16. (Withdrawn) The immunochemical assay according to claim 4 wherein said support is beads or a plate.

17. (Currently Amended) An immunochemical assay for anti-HM1.24 antibody, said assay comprising the steps of reacting soluble HM1.24 antigen protein with anti-HM1.24 antibody contained in a test sample, wherein the test sample includes human body fluids, culture supernatants of cells or animal secretion, and then detecting or determining the anti-HM1.24 antibody bound to the soluble HM1.24 antigen protein, wherein the soluble HM1.24 antigen protein is a protein consisting of the amino acid sequence modified by lacking the last 17 amino acid residues from a C-terminus of the amino acid sequence of SEQ ID NO:20.

18. (Currently Amended) An immunochemical assay according to claim 1, wherein the test sample includes human body fluids fluids is selected from the group consisting of human fluids, blood, and serum, urine and synovial fluids.

19. (New) The immunochemical assay according to claim 18, wherein the human body fluids are selected from the group consisting of blood and serum.